

FOURTH EDITION

Organic Chemistry

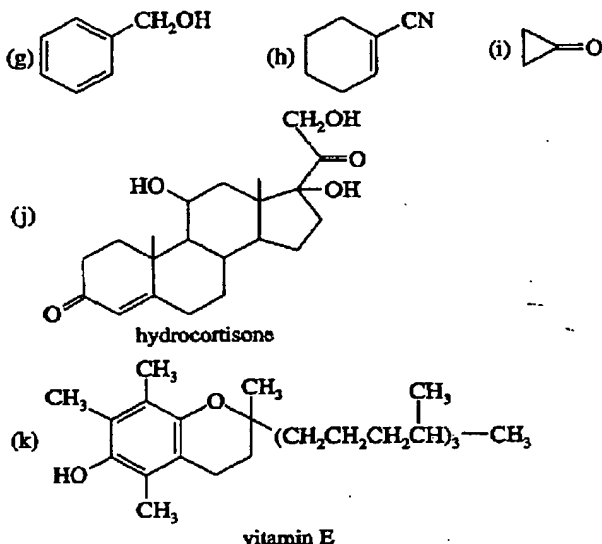
L. G. Wade, Jr.

Whitman College

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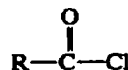
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acid chloride An acid derivative with a chlorine atom in place of the hydroxyl group. (p. 75)



alcohol A compound that contains a hydroxyl group; $\text{R}-\text{OH}$. (p. 73)

aldehyde A carbonyl group with one alkyl group and one hydrogen; $\text{R}-\overset{\text{O}}{\underset{\text{||}}{\text{C}}}-\text{H}$. (p. 74)

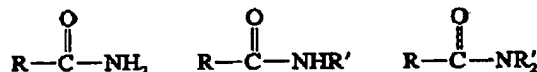
alkanes Hydrocarbons containing only single bonds. (p. 70)

alkenes Hydrocarbons containing $\text{C}=\text{C}$ double bonds. (p. 71)

alkynes Hydrocarbons containing $\text{C}\equiv\text{C}$ triple bonds. (p. 72)

alkyl group A hydrocarbon group with only single bonds; an alkane with one hydrogen removed, to allow bonding to another group; symbolized by R. (p. 70)

amide An acid derivative that contains an amine instead of the hydroxyl group of the acid. (p. 76)



amine An alkylated analogue of ammonia; $\text{R}-\text{NH}_2$, R_2NH , or R_3N . (p. 75)

aromatic hydrocarbons (arenes) Hydrocarbons containing a *benzene ring*, a six-membered ring with three double bonds. (p. 72)

bond dipole moment A measure of the polarity of an individual bond in a molecule, defined as $\mu = (4.8 \times d \times \delta)$. μ is the dipole moment in debyes (10^{-10} esu-Å), d is the bond length in angstrom units, and δ is the effective amount of charge separated, in units of the electronic charge. (p. 59)

carbonyl group The >C=O functional group, as in a ketone or aldehyde. (p. 74)

carboxyl group The $-\text{COOH}$ functional group, as in a carboxylic acid. (p. 74)

carboxylic acid A compound that contains the carboxyl group; $\text{R}-\overset{\text{O}}{\underset{\text{||}}{\text{C}}}-\text{OH}$. (p. 74)

cis-trans isomers (geometric isomers) Stereoisomers that differ in their cis-trans arrangement on a ring or a double bond. The cis isomer has similar groups on the same side, while the trans isomer has similar groups on opposite sides. (p. 58)

Chapter 2 Glossary